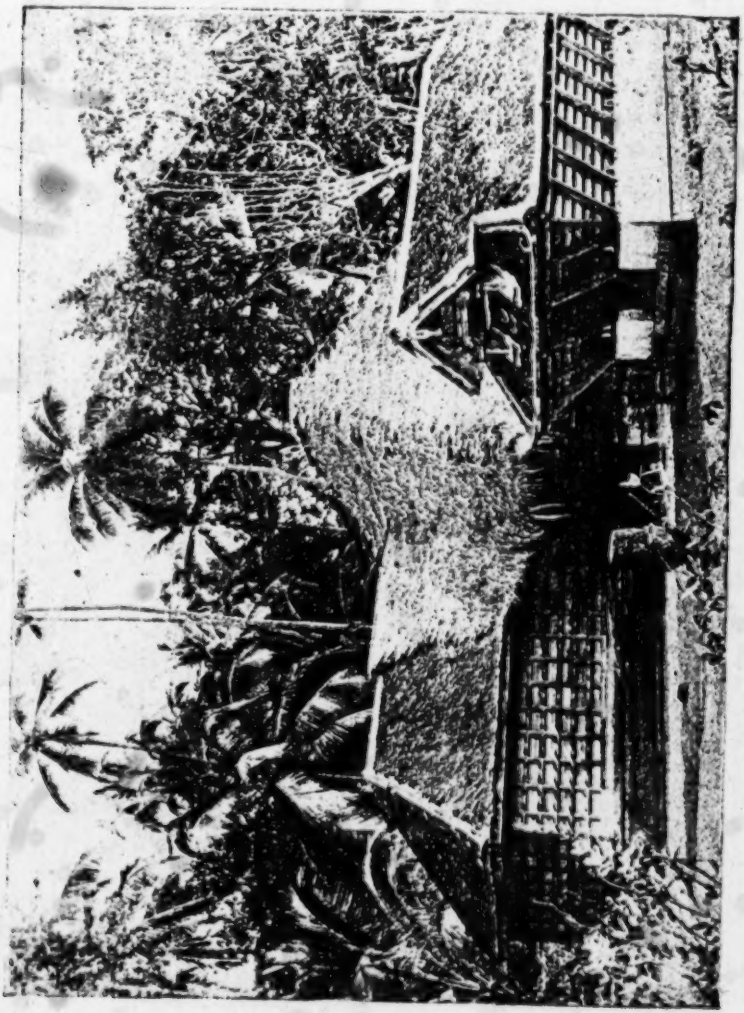
6:Fawcett G-5 (ca. 1900)1915
AWll Kerala AWll
Nayar



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AYYAPPAN TEMPLE, NEAR CALICUT.

[Facing P. 272]

9:Iyer E-4, 5 (ca. 1902-1906)1912
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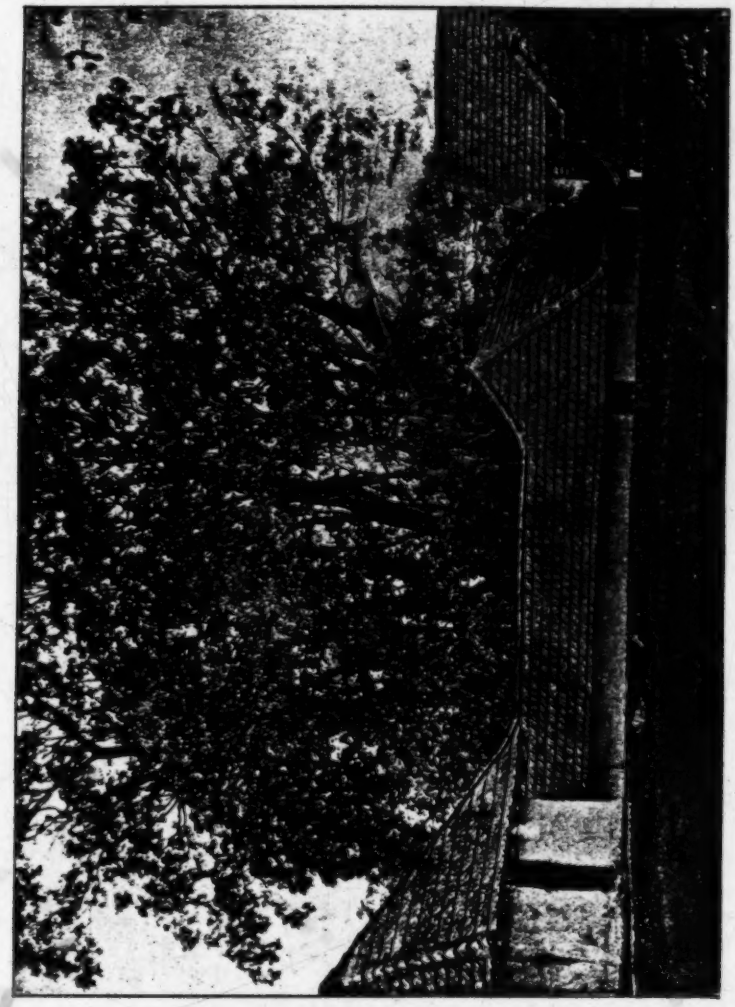

A TYPICAL KAVU.

[facing p. 83]

9:Iyer E-4, 5 (ca. 1902-1906) 1912
AWll Kerala AWll
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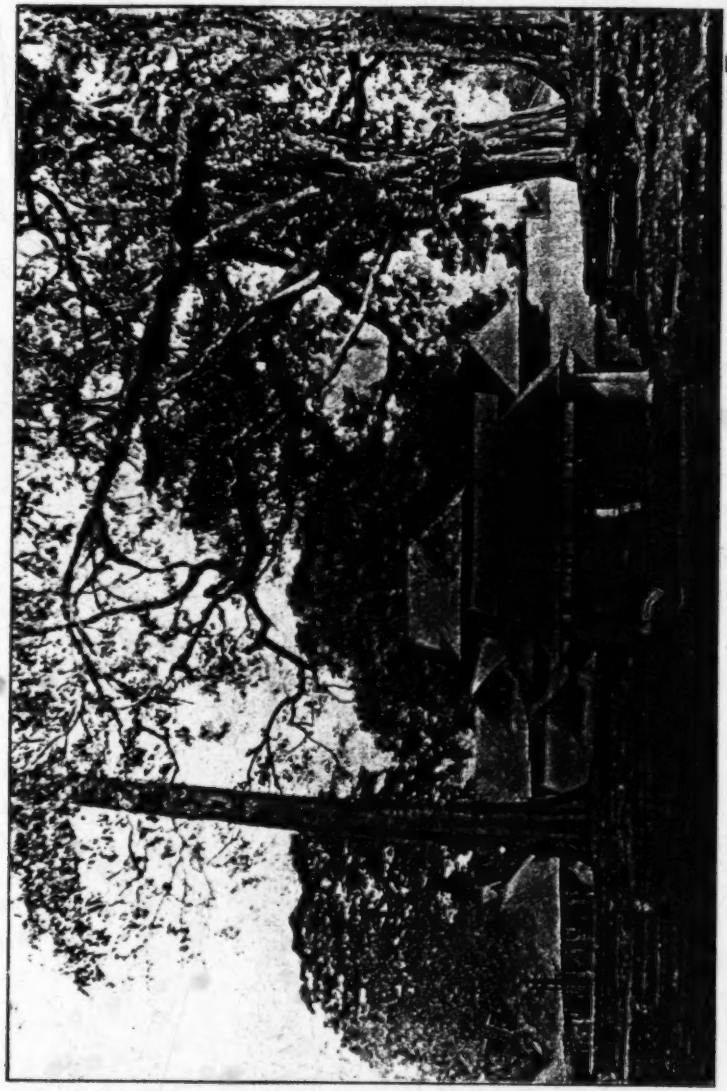

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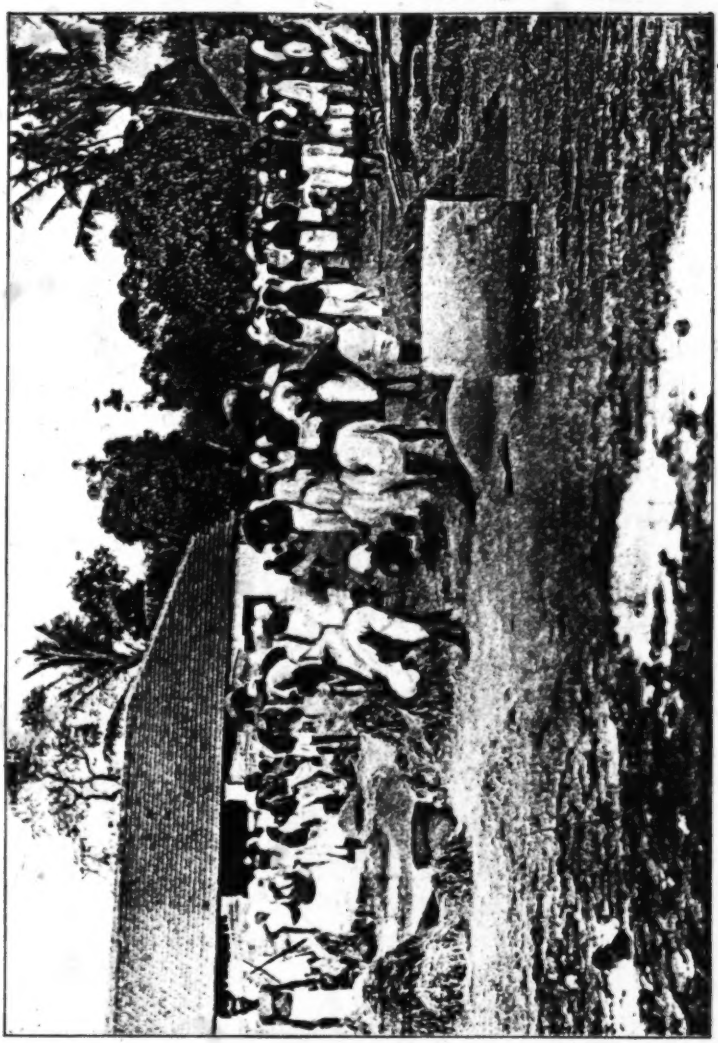
CRANGANORE BHAGAVATHI TEMPLE.

[facing p. 86]

9:Iyer E-4, 5 (ca. 1902-1906) 1912
AWll Kerala AWll
Nayar



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NAYAR WOMEN THRESHING CORN.

[facing p. 98]

Chapter 1

The Setting

KERALA IS THE smallest State in the whole of India.[1] It is a narrow strip of land along the western coast of India. It has an area of 14,992 square miles[2] and the coastal line is nearly 360 miles. The breadth of the State varies from 20 to 75 miles, as one moves from the extreme north to the middle. Its boundaries touch the State of Mysore in the north and that of erstwhile Madras in the east and south-east. It lies between 8°15′ and 12°45′N latitude and 74°50′ and 77°30′E longitude.

1.2 Kerala was created in 1956 at the time of the reorganization of the State through the integration of the erstwhile State of Travancore-Cochin and the Malabar district and the Kasargod taluk in South Kanara district of the erstwhile Madras State. At the same time Travancore-Cochin lost Kanyakumari, part of the Trivandrum district and Shencottah, part of the Quilon district, to Madras State. However, the net area of the State increased by about two-thirds after the reorganization of the State. Prior to the formation of Kerala as a separate State, Travancore-Cochin was administratively divided into four districts, while Malabar was a single district. At the time of integration, Malabar was broken up into three districts. Subsequently, during 1957 two new districts, viz., Alleppey and Ernakulam were carved out of the territory belonging to Trichur, Kottayam and Quilon. The State, therefore, now comprises nine districts. The total length of the State from its northern extremity to the southern tip is about 360 miles. But its width is nowhere more than 75 miles.

PHYSICAL FEATURES

1.3 The State territory may be broadly classified into three natural sub-divisions, the highland, the midland and the lowland. Western Ghats which range along the eastern border of the State form the highland. This is mostly a mountainous and rocky terrain ranging in height from 3,000 ft. to 8,000 ft. Anamudi, the highest peak of the Western Ghats (8,837 ft.) is located in the Kottayam district. The highland is thickly forested in its upper ranges, while in the lower ranges the forests are interspersed with plantations.

1.4 On the western fringe of the State are the lowlands which stretch along the coastal plain. Coconut palms, which cover most of this area, lend a richness to the landscape of the region. The soil in this plain is sandy. Coir-making and fishing are the two main occupations. Sandwiched between the lowland and the highland

[1] Excluding the Union Territories.

[2] *Statistical Outline of Kerala State*, Department of Statistics, Government of Kerala.

[P. 66]

MAP 8

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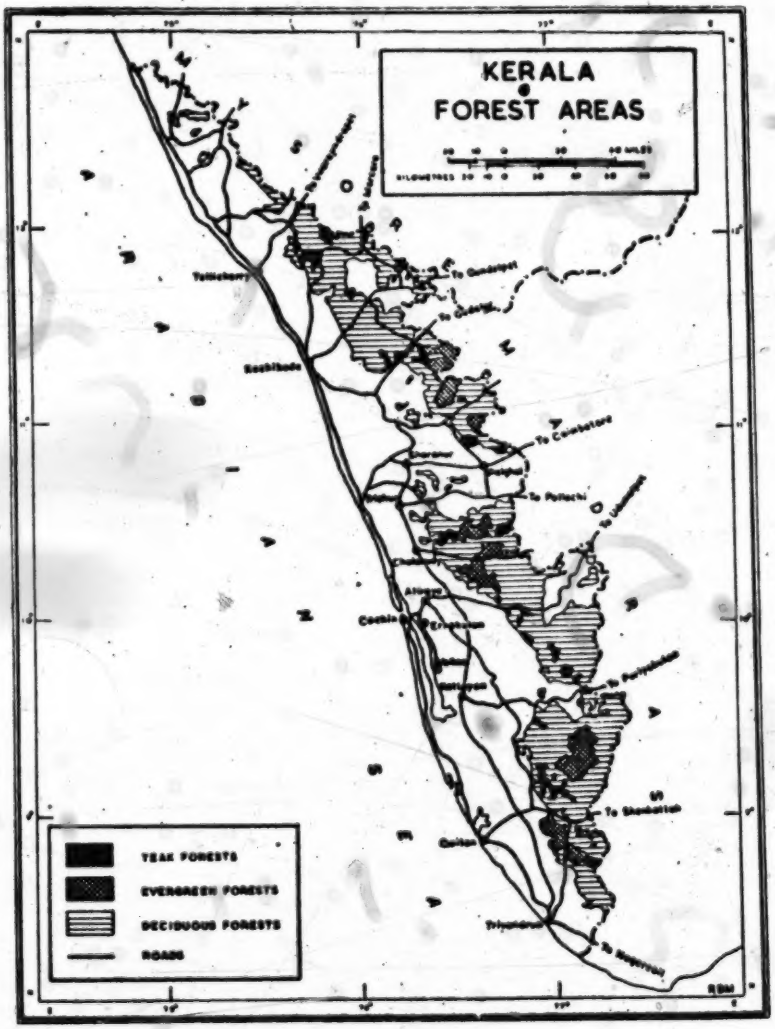

Chapter 4

Forests

FORESTS RANK AMONG the key resources of Kerala. Estimates of the area under forests differ widely. According to the Revenue Department figures, the area under forests is 24.58 lakh acres, that is, 26.2 per cent of the total area of Kerala. According to the Forest Department, the area under its jurisdiction is 22.28 lakh acres. Private forests account for another 4.80 lakh acres thus giving a total forest area of 27.08 lakh acres (30 % of the total area). Whichever be the correct figure, it is clear that the proportion of area occupied by forests is much higher in Kerala than the average for the whole of India (17.2%).

4.2 Apart from the importance of forests as a source of raw material for the industry, and timber for other uses, forests have a moderating effect on the climate and act as a vegetal cover protecting the soil from erosion. The position in Kerala is quite satisfactory in respect of the protective function of forests. A large number of perennial tree crops like coconut, arecanut, cashewnut and rubber are also grown in the State. Their effectiveness in protection of the soil and influence on climate is as great as in the case of the forests. These perennial crops, therefore, act as a useful subsidiary to the actual forest growth.

4.3 The quality of forest growth of Kerala is also of a very high order. During 1955-56, forests contributed Rs. 5 crores,[1] that is, 1.4 per cent of the State income, which is almost double the all-India average (0.7%). Per acre yield of forests is also higher in Kerala. Whereas it was Rs. 5.6 per acre on an average for India, it was as high as Rs. 18 per acre in Kerala during 1955-56. Employment potential of forests, however, is quite meagre in relation to the area they occupy. Forests in Kerala employed only 19,000 workers, that is, 0.35 per cent of the total working force (all-India 0.4 %). Forests generally require only a few hands to work as the maintenance staff and as labour for extraction and logging.

Type of Forests and their Regional Distribution

4.4 The high yield and the large variety of important commercial species grown in the State are a consequence of the climatic and topographical features of the State. Kerala gets the benefit of south-west as well as north-east monsoons. As a result of these, the State is well assured of a good rainfall which, in addition, is fairly well

1. Appendix 2 explains the method of calculation.

11: India G-4,5 (1960-1961) 1962 AWll Kerala AWll

distributed over the year. The high degree of rainfall, old geological formation and maritime climate have largely been responsible for the luxuriant forest growth in Kerala. Trees get the full benefit of moisture, depth of soil and protection from frost and drought. For these reasons, forests in Kerala also possess the advantage of a long growing season.

4.5 Most of the forest area lies in the high ranges on the eastern border of the State and in the area adjacent to these. Only a few strips are found in the coastal plain. The forest area is, however, distributed over all the districts of the State. Since the forests run across the whole of eastern border while the districts in the State occur almost longitudinally, all districts, except Alleppey have a good proportion of their area under forests. The districts of Quilon and Trichur have as high as 45.2 per cent and 45.1 per cent respectively of their area under forests. (Table 23)[1]

4.6 The wide variations in climatic and topographical conditions in the State have resulted in a large variety of forests. With the exception of the desert, the truly temperate and the alpine types, all classes of forests are found in Kerala. In addition to the natural forests, Kerala has also got artificial plantations of valuable species. The State has been a pioneer in this sphere.

4.7 Among the natural forests, deciduous forests comprise 80 per cent of the growth. The rest is of the evergreen type. The evergreens are found mostly in the higher ranges above a height of 2,500 feet since they require a cool climate for their growth. The various types of forests found in the State are given below:

(1) *Evergreen Type*

(a) Southern tropical wet evergreen forests,
(b) Southern tropical semi-evergreen forests,
(c) Mountain wet sub-tropical evergreen forests, and
(d) The temperate Shola-Grasslands.

(2) *Deciduous Type*

(a) Southern tropical wet Deciduous forests and
(b) Tropical dry Deciduous Forests.

4.8 Among the evergreen types, most of the species are utilized in the manufacture of plywood and packing cases, which is a flourishing industry in the State. Pali Kulamavn and Vellapine are some of the well known plywood species. Anjali, which is used for boat-building and mahagony utilized for furniture, are two other important economic species found among the evergreens. Of late, a number of other evergreen species have sprung into prominence and are now finding economic uses. Since markets for these are growing, it is planned to extract these newer species also on a commercial scale.

4.9 Teak and rosewood are the most important species found among the deciduous forests. Vanteak, Rosewood, Poola and Charopine are some of the other important species belonging to this category. These species are chiefly useful in making furniture and in building and construction work. A detailed list of the trees and other major produce found in Kerala along with their present uses is given in Appendix 5.[2] A list of minor produce is given in Appendix 6.[3]

[1] [Table 23, appearing on p. 286 of the text, has not been procured--Ed.]
[2] [3] [See pp. 329-333, category 116--Analyst]

11: India G-4, 5 (1960-1961) 1962 AWll Kerala AWll

SOME FORESTRY PROBLEMS

Acquisition of Private Forests

4.20 It has been mentioned that forests of Kerala are one of the best managed ones. But this is true only of the reserved forests under Government jurisdiction. In the Malabar area there are about 5 lakh acres of private forests which are maintained very unsatisfactorily. Unlike the reserved forests, there is no adequate protective staff for the care of these forests and no attention is paid to their regeneration or management on scientific lines. This has naturally resulted in an unwarranted depletion of forest wealth in the private forest areas. In the interests of adequate preservation of forest wealth, immediate steps are necessary to acquire the private forests and bring them within unified forest management under the control of the Forest Department. A provision for acquiring the private forests was made during the Second Plan but their acquisition could not be carried out. This must be effected during the Third Plan period.

The Problem of Encroachment

4.21 There is one other disquitening feature about forests in Kerala. Such is the pressure of population in the State that inroads are being made into the forest areas, especially where forests occur in the midland region. This has taken the form of Government deforestation of forest areas in the interests of Grow More Food Campaign. In addition, there have also been illicit encroachments and these areas are still under cultivation, although the State Government have declared them to be revertible. The extent of these areas is not very large compared to the total area under forests. About 9,750 acres fall within the former category and 16,500 acres belong to the category of revertible areas. The gravity of the encroachment situation arises from the fact that in case a lenient view is taken, these will prove a serious menace to proper maintenance of forest potential in the long run.

Regeneration of Evergreen Forests

4.22 The problems referred to above were of an administrative nature; but forestry in Kerala is faced with one or two urgent technical problems as well. One of these is to find out some way of inducing adequate regeneration of the evergreen species.

4.23 Of late a number of evergreen species have found new uses in the manufacture of plywood logs, railway sleepers, telegraph poles, etc., and these species have all come into prominence. Full potential of the existing evergreen forests cannot, however, be tapped since their natural regeneration takes time. The forest department has, therefore, got to keep control over the working of these forests.

4.24 In case of some species because of difficulties connected with regeneration, there has been a shortage of supply. The problem of regeneration of these forests is intimately connected with the problem of light. Regeneration requires light to

11: India G-4, 5 (1960-1961) 1962 AWII Kerala AWII

313 be so regulated as not to disturb the present symbiosis between the plant species present. Intensive research is, therefore, urgently required to find ways and means [654] of inducing adequate regeneration of the evergreen forests. There are at present two research stations in the State at Malayathur and Nilambur. The location of a third station in the evergreen forest areas is recommended.

Eupatorium

137 4.25 A problem that has been engaging the attention of the Forest Department is that of the weed eupatorium. It got introduced into the State from Assam at the end of the Second World War by some ex-service men who had served in Assam. The weed has spread like wild fire throughout the State and has become a serious [654] menace. Recent research carried out by a biochemist in Trivandrum has found a use for this shrub in the manufacture of fertilizers. Further research may be carried out to find its fruitful uses.

Tribals

*433 4.26 A few tribes reside within the forest areas. They are allowed free grazing 162 rights and privileges of cultivation, free of assessment. However, this does not provide 402 them with a full-time occupation. On the other hand, it is not possible to arrange for their migration to midland or the coastal region because of the high pressure of [245] population which exists in these areas. It has, therefore, been suggested in this Report, that two labour colonies should be formed in grass land *sholas* where large scale planting of *Eucalyptus Grandis* is taking place. This labour force could later be employed in the proposed newsprint mills when they come up.

RECENT DEVELOPMENTS

*433 4.27 During the First Plan period there was no forest development scheme. A 313 beginning in forest development programmes was made only during the Second Plan. 654 An amount of Rs. 1.24 crores out of a total Plan outlay of Rs. 87 crores was earmarked for forest development plans in the Second Plan period. By the end of 1959, however, only Rs. 21.68 lakhs had been spent. The shortfall arose mainly on account of two items. The largest single item among forestry was acquisition of private forests in Malabar and for this Rs. 40.95 lakhs had been allotted. Due to procedural difficulties, this could not be undertaken and only Rs. 0.34 lakhs had been spent by the end of 1959. Secondly, although the progress of cashewnut afforestation programmes in terms of physical target has been statisfactory, as can be seen from Table 24, the cost of afforestation programmes at Rs. 24 lakhs was an over-estimate. Actual performance has been possible within Rs. 4.81 lakhs.

4.28 Table 24 gives the Plan provision and progress in execution of various schemes upto the end of 1959. Overall progress has been slow, except in the raising of plantations where the Department hopes to achieve all the targets. The slow progress

2 [Table 24, appearing on p. 287 of the text, has not been processed - Analyst]

12:Peter E-5 (1939, 1949) 1963 AW11 Kerala AW11

Ghats, the height of which varies between five and over eight thousand feet.

Before 1957, when the new State of Kerala came into being with the reorganization of the Indian States, the area included the large Madras district of Malabar, the French possession of Mahe, and the princely State of Cochin amalgamated with that of Travancore. The respective capitals were Calicut (today Kozhikode), Ernakulam, and Trivandrum, the French possession being limited to the town bearing the same name as itself.

All rivers in Kerala, except those of the more elevated taluk of the Wynaad, run from east to west, cutting the coastal strip into sections. Inland, however, vast stretches of practically stagnant water, comparable to lagoons, known locally under the name of backwaters, extend down the whole length of the State, affording uninterrupted communication.

Geologically, Kerala is a low tableland of red laterite and clay, fringed by a coast of alluvial formation. Laterite, from the name given to it by Dr Buchanan in 1800, is really a soil of decomposed gneiss, from which the Western Ghats are made. When dug up and left to the action of sun and rain, only the skeleton of hard material remains, sponge-like in appearance, from which blocks of building material are cut. It is not very resistant or long-lived, and gradually disintegrates into a red type of gravel, more or less finely granulated.

The resultant soil or loam is a well-balanced mixture of clay and sand, admittedly poor in organic matter, but well-suited to the special types of crops which have given Kerala its wealth. Thus rice, coconuts, pepper and betel, arecanuts, jack fruits, mangoes and cashews, do extraordinarily well in it, helped as they are by the damp, warm climate constant throughout the year. There are two monsoons in Kerala, the south-west monsoon of the summer, which is the principal one, and the north-west monsoon of the autumn which, lately, often fails.

In appearance, the landscape of Kerala varies very little from the coastal line to the towering peaks of the Western Ghats. Along the beach of fine sand, coconut trees in an unending perspective, raise their gently waving palm leaves in a manner reminiscent of the South Seas and of Ceylon. Jack fruit trees and mangoes behind them, being of a darker coloured foliage, give depth to the romantic scene. It is among these that the houses of the inhabitants of Kerala are to be found. Unlike the rest of India, human habitations are not grouped together here in villages and towns. Each stands isolated from its neighbours, in a garden-like compound surrounded by a stout fence of brambles or of

12:Peter E-5 (1939, 1949)1963 AWll Kerala AWll

thorns and planted with big-leaved plantains, flowering bushes such as the hibiscus, and tall, slender arecanut palms, their graceful, shining trunks entwined with betel and pepper creepers. Here and there, a red tiled roof denotes the dwelling of some high-caste person, while elsewhere, the thatched roofs of the ordinary houses reveal the low social status of the majority.

Red laterite dust roads criss-cross this green scenery, highways and lesser paths upon which a continual stream of men and women, scantily clad in white, are forever on the move. Dry river beds in the spring and swollen, muddy torrents in the monsoon season, are crossed together with the broad expanse of calm, smooth backwaters on the way east to the inland red laterite hills. It is here that the majority of the terraced paddy fields are met with, green and flooded in the summer and dried up, with tufts of yellow straw stalks the rest of the year, their fringes strewn with rustling, restless coconut trees.

2. MYTHOLOGICAL BACKGROUND AND HISTORY

Hindu Brahmin tradition has it, so I heard from my informants in this region, that Kerala (*Malayalam* or *Keralabhumi* as it is called in the *Keralolpatti* and *Kerala Mahatmyam* chronicles) was created from the sea by Parasu Raman, the axe-wielding avatar of the god Vishnu, and given to those Brahmins called Nambudri for their perpetual possession and enjoyment. The myth, to which even the modern Hindu inhabitants of Kerala subscribe, is no doubt symbolic of two things: the geological origin of the land at the foot of the Ghats, which appears really to have been uncovered from the sea in some ancient natural upheaval, and the colonization of Kerala by Aryan invaders from the north in a remote and ill-defined past.

The mythological tale, in detail, is that Parasu Raman was once ordered by his father to kill his mother, because the latter had been seen by her husband smiling at a youth when she was fetching water at the well. The son, in filial obedience to his father, carried out the order, but having done so, attempted in every possible way to atone for the abominable crime of matricide. He consulted Brahmins who requested of him that he exterminate twenty two generations of the rival warrior caste of Kshattryas. This he did, but the Brahmins were not satisfied. Parasu Raman then climbed the Western Ghats and, from the highest point, cast his axe into the sea calling upon it to withdraw, which it did. The land of Kerala thus came into existence and Vishnu's avatar, the

13;Thurston & Rangachari E-4, 5 (no date) 1909
AW11 Kerala AW11
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843 performed, usually the vadakkini, there is arranged a mat, the usual lamp (nilavilakku) with five wicks, and a para measure of rice (niracchaveppu), also the materials necessary for the performance of Ganapathi pūja (worship of the god Ganēsa), consisting of plantains, brown sugar, leaves of the sacred basil or tulasi (*Ocimum sanctum*), sandal paste, and the eight spices called [593] ashtagantham. The woman's brother performs Ganapathi pūja, and then gives some of the tamarind leaves to the Enangatti, who expresses their juice, and mixes it with [824] that of four other plants.* The mixture is boiled with a little rice, and the brother takes a little of it in a jack [602] (*Artocarpus integrifolia*) leaf folded like a spoon, and lets it run down the blade of a knife into his sister's mouth. He does this three times. Then the mixture is administered in the same manner by some woman of the husband's family, and then by an Ammāyi (wife of [574] one of the members of the girl's tarwad). The branch is then planted in the nadumittam, and feasting brings the ceremony to a close. The above description was obtained from an Urali Nāyar of Calicut taluk. In other localities and castes, the details vary considerably. [564] Sometimes the mixture is simply poured into the woman's mouth, instead of being dripped off a knife. Some castes use a small spoon of gold or silver instead of the jack leaves. In South Malabar there is not as a rule any procession to the tamarind tree. Among Agathu Charna Nāyars of South Malabar, the ceremony takes place in the nadumittam, whither the tamarind branch is brought by a Tiyan. The girl carries a valkannadi or bell-metal mirror, a charakkōl or arrow, and a pisankatti (knife). An Enangatti pours some oil

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[137] * The aimpuli or "five tamarinds" are *Tamarindus indica*, *Garcinia Cambogia*, *Spondias mangifera*, *Bauhinia racemosa*, and *Hibiscus hirtus*.

13:Thurston & Rangachari E-4, 5 (no date) 1909
AW11 Kerala AW11
Nayar

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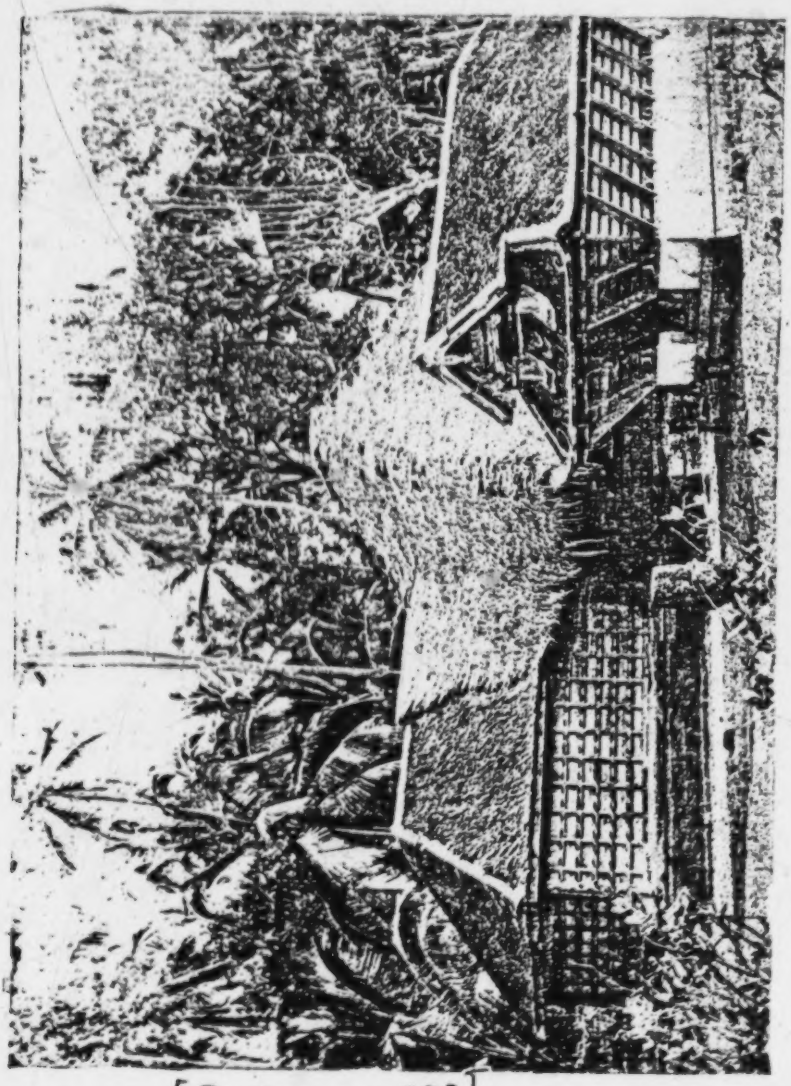

AIYAPPAN TEMPLE, NEAR CALICUT.

[Facing p. 393]

31: Slater S-5 (1916-1917) 1918 AWI India Kerala AWII

There is hardly any public tank. One stream (channel) flows along the northern boundary of the desam during rainy seasons when the fields become flooded. But its utility is limited since with the summer the whole channel is dried up. There are private wells in all gardens and sometimes in the fields of corn. But they are shallow for the most part and the water-supply is inadequate. The ryots who are wretchedly poor cannot afford to utilise modern progress in the field of well-boring, nor are they conversant with such developments. 312

There are woods and forests near the desam as we have before mentioned, but they are of no practical use to the people. The forest, which is outside the boundary limit of this desam, is under Government supervision and people are not allowed to cut trees. Other resources of the forest, moreover, are hardly taken advantage of, partly by the general apathy of the cultivator for improvement and partly by its being situated sufficiently far to dissuade them from incurring the necessary loss involved. At the same time it is in a way an influence to the ryots' detriment, for tigers, boars, etc., which the Akalanum and Mattur hills breed occasionally, make nocturnal depredations on the ryots' stock and corn fields. The peasantry are helpless against these enemies. 137 136

Occupation of land.—The private jenmam ryotwari holdings during the year of settlement (fasli 1313) are classified as follows :— 423 427 [651]

Pattadars paying	Number.			Extent.		Assessment.	
	Single	Joint.	Total.	Acs.	C.	Rs.	A.
Re. 1 and less	2	...	2	...	50	1	8
Rs. 10 and less but over Re. 1	7	2	9	7	71	33	14
„ 30 „ „ „ 10 ...	3	2	5	18	21	96	7
„ 50 „ „ „ 30 ...	1	...	1	7	8	37	5
„ 100 „ „ „ 50 ...	...	...	...	...	...	...	...
„ 250 „ „ „ 100 ..	...	...	...	...	...	...	...
„ 500 „ „ „ 250 ...	1	...	1	99	56	401	13
„ 1,000 „ „ „ 500 ...	...	...	...	...	...	...	...
Over 1,000 ...	1	...	1	718	80	2,315	4
Total ...	15	4	19	851	86	2,886	3

Out of 851·86 acres no less than 818·36 belong to the two jenmi landlords. There are no occupants of Government jenmam ryotwari land in the same year.

Almost all kanomdars are themselves cultivators. The two jenmis, who are Brahmans by caste, and nearly 10 other families

31: Slater S-5 (1916-1917) 1918 AWI India
Kerala AWII

311 *Land.*—

	ACS.
Wet land	681·07
Occupied dry land	231·12
Unoccupied dry land	1,221·92
Garden land	109·59

137 Woodlands cover an area of about 150 acres. Shrubs and thickets, as well as rank undergrowth are found almost everywhere. Big trees, scattered and in groves, are also abundant.

Fruit trees and scattered shade trees are abundant. Among the former may be mentioned the mango, jack, coconut and areca-nut palms, the palmyra palm (yielding toddy), etc. There are numerous kinds of shade trees, many of which can be used as timber. Among timber trees specially may be noted the teak and the jack-tree.

312 Tanks and wells are very numerous. Wells indeed are too numerous to be enumerated. Every house has one or more and there are several in the fields, about one in an acre. There are more than 50 tanks, though some of them are mere ponds, dry in most months. A few tanks yield water unfailingly for irrigation on a small rate. They may be 6 to 20 feet deep and of varying lengths, from, say 10 to 100 feet. Some are of irregular shape. The wells are either circular or rectangular and from 10 to 40 feet deep--often deeper still. If circular their diameter measures from 5 to 10 feet and if rectangular they are from 6 to 10 feet broad and 8 to 16 feet long. A few are dry in summer, but many wells yield an abundant and unfailing supply of water for domestic and agricultural purposes.

There is a small channel passing through the village which is full during the rains, but mostly dry in the hot months. A dam is however put across it in some places and the scanty water stored up for future use. But there is not any very considerable quantity.

427 *Occupation of land.*—Most of the cultivated area is sublet to tenants. This is characteristic of Malabar, where most of the landlords do not themselves cultivate the land, but let it to others on short leases of 12 years called *kanom* leases. The kanom lease-holders in turn sublet the land, though a few of them actually cultivate it.

There are nominally 50 patta-holders and all of them come under the head of non-cultivating landowners. The richest have no particular occupation. Many are Nambudiri Brahmans not resident in the village, and they have comfortable positions as priests, preceptors, etc. The biggest landowners, who almost monopolise the land, are two or three in number and they live in ease on the revenues of their lands.

The great body of tenants own no land; they simply rent it on kanom lease or are tenants at will. There may be one or two among the landowners who are also the kanom tenants of some other landlord. But as a rule the kanom tenant owns no land.

There is a growing body of landless agricultural labourers.

By the census of 1901 there were 383 landholders (tenants) in that year. This number declined to 258 in 1917, paying land-revenue as stated below (note that the superior occupier contracts with his tenants that the latter pay the kist).